



260161

61
I-5

931919

ON-SCENE COORDINATOR'S REPORT
CERCLA REMOVAL ACTION
Paxton Lagoon
Chicago, Illinois
SITE ID# GH

DELIVERY ORDER NO. 7360 - 05 - 036
REMOVAL DATES: September 1, 1989 - January 26, 1990

EMERGENCY AND ENFORCEMENT RESPONSE BRANCH
OFFICE OF SUPERFUND
WASTE MANAGEMENT DIVISION
REGION V
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
230 SOUTH DEARBORN STREET
CHICAGO, ILLINOIS

EXECUTIVE SUMMARY

On September 11, 1989, the U.S. Environmental Protection Agency (U.S. EPA) initiated a removal action at the Paxton Skimmer Avenue site in Chicago, Illinois. The removal action was taken to mitigate threats to the public health and environment posed by an unlined acidic skimmer lagoon and approximately 60 drums containing hazardous material, as defined by the Resource Conservation and Recovery Act (RCRA). The material posed threats through direct contact, fire and explosion, inhalation, and ingestion. A removal action to address the other waste lagoons at the site is underway by the Illinois Environmental Protection Agency (IEPA). The IEPA is operating a mobile incinerator to dispose of the contents of a polychlorinated biphenyl (PCB)-contaminated main lagoon and surrounding soil.

Under U.S. EPA guidance, the Emergency Response Cleanup Services (ERCS), MAECOORP Incorporated, solidified and neutralized approximately 2,200 cubic yards of acidic lagoon contents, 44 acidic solid drums, seven base/neutral drums, and one inorganic acidic liquid drum. In addition, seven drums of corrosive, flammable liquid were incinerated off site. A total of 385 gallons of corrosive wastes were removed from the site. All actions taken were consistent with the National Contingency Plan.

The removal was completed on January 26, 1990, at an estimated cost of \$162,314.01 which includes \$112,183.89 for the ERCS contractor. The OSC for this project was William Simes.


William Simes
On-Scene Coordinator

6-7-91
Date

TABLE OF CONTENTS

	<u>PAGE</u>
EXECUTIVE SUMMARY.....	ii
LIST OF FIGURES.....	iii
LIST OF TABLES.....	iii
LIST OF ATTACHMENTS.....	iii
LIST OF APPENDICES.....	iv
 1.0 SUMMARY OF EVENTS.....	 1
1.1 Initial Situation/Location.....	1
1.2 Previous Actions.....	1
1.3 Threat to Public Health and the Environment.....	1
1.4 Attempts to Obtain a Response by Potentially Responsible Parties.....	6
1.5 Actions Taken.....	6
1.6 Community Relations.....	7
1.7 Cost Summary.....	7
 2.0 EFFECTIVENESS OF REMOVAL ACTION.....	 9
2.1 Responsible Parties.....	9
2.2 State and Local Agencies.....	9
2.3 Federal Agencies.....	9
 3.0 PROBLEMS ENCOUNTERED.....	 9
 4.0 RECOMMENDATIONS.....	 9

LIST OF FIGURES

	<u>PAGE</u>
FIGURE 1 - SITE LOCATION MAP.....	2
FIGURE 2 - AREA MAP.....	3
FIGURE 3 - SITE MAP.....	4

LIST OF TABLES

	<u>PAGE</u>
TABLE 1 - DISPOSAL SUMMARY.....	8
TABLE 2 - SUMMARY OF MINI-ERCS CONTRACTOR EXPENDITURES BY SERVICE.....	10
TABLE 3 - SUMMARY OF TOTAL REMOVAL COSTS.....	11

LIST OF ATTACHMENTS

ATTACHMENT A - TIMELINE OF EVENTS.....	12
--	----

LIST OF APPENDICES *

APPENDIX A - Action Memorandum
APPENDIX B - Delivery Order
APPENDIX C - TDDs for TAT
APPENDIX D - POLREPs
APPENDIX E - Daily Work Orders
APPENDIX F - 1900-55 Forms
APPENDIX G - Incident Obligation Log, Daily Cost Summaries and U.S. EPA Cost Information
APPENDIX H - Site Entry/Exit Log
APPENDIX I - Hot Zone Entry/Exit Log
APPENDIX J - Materials Log
APPENDIX K - Analytical Results
APPENDIX L - Site Photographs
APPENDIX M - Chains of Custody
APPENDIX N - Invoices
APPENDIX O - Manifests
APPENDIX P - Site Safety Plan
APPENDIX Q - Miscellaneous Documents/Reports/Correspondence
APPENDIX R - Disks (RCMS, POLREPS)
APPENDIX S - Drum Logs
APPENDIX T - Compatibility Results
APPENDIX U - TAT Letter Report/Site Investigation
APPENDIX V - Site Log

* Portions of these OSC Report Appendices may contain confidential business or enforcement-sensitive information and must be reviewed by the Office of Regional Counsel prior to release to the public.

1.0 SUMMARY OF EVENTS

1.1 Initial Situation/Location

The Paxton Avenue Lagoon (Paxton) site was an illegal dump site located in an industrial area near the convergence of the Calumet River and Lake Calumet in Chicago, Illinois (Figure 1). The site is bordered by Paxton Landfill to the north, Land and Lakes Landfill to the west, 122nd Street to the south, and Torrence Avenue to the east. Several industrial facilities and smokestacks, including Chemical Waste Management Chemical Services, Inc. are located near the site. Topography is relatively flat. Geology consists of lacustrine silts, clays, and sand underlying a lake plain or beach complex on the present land surface.

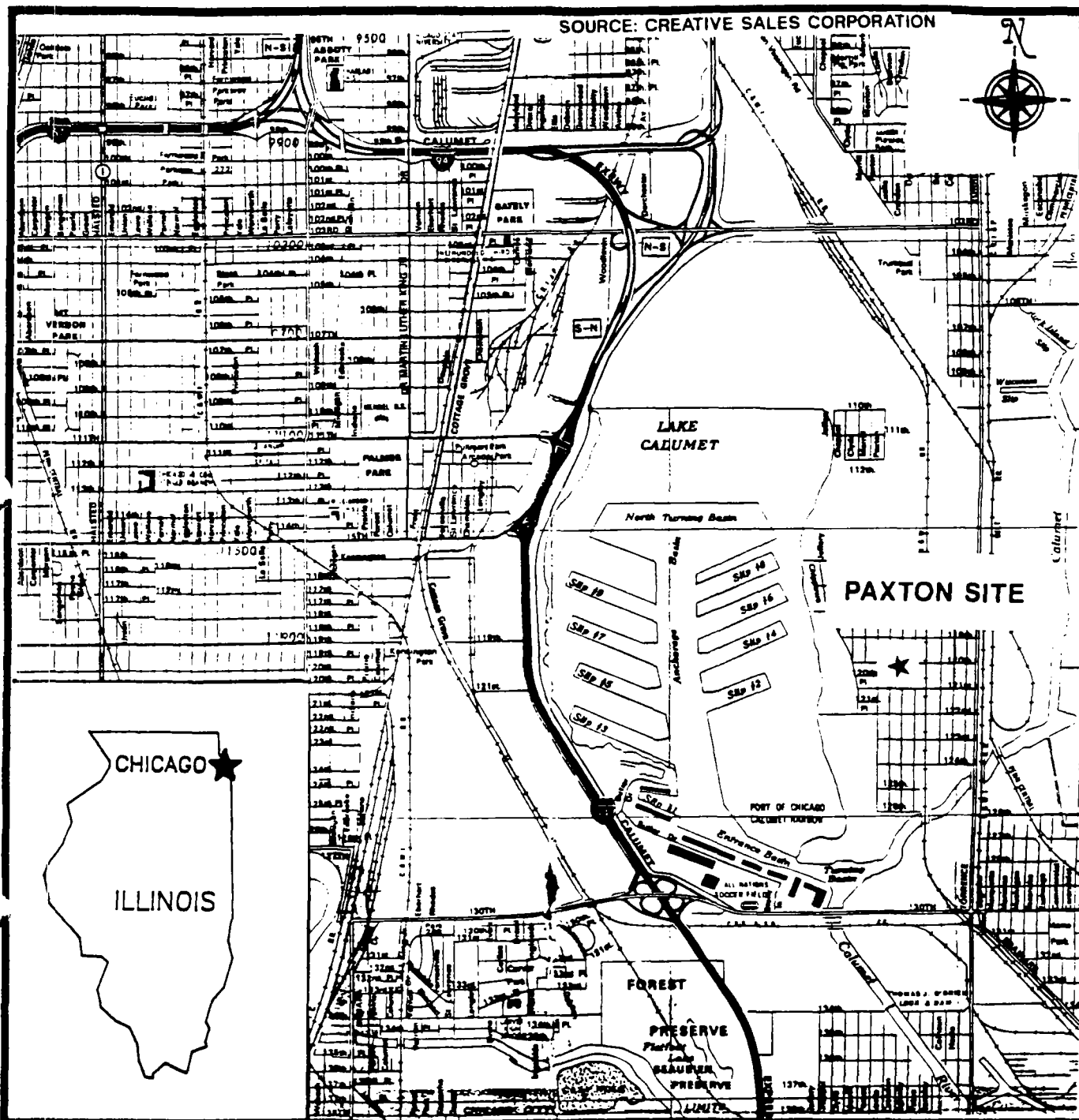
1.2 Previous Actions

In August 1983, the Technical Assistance Team (TAT) conducted a site assessment at Paxton and presented alternative actions for the mitigation of the threats posed by the site (TDD# 5-8307-03). In 1985, John Mathes & Associates, Inc. (Mathes) conducted a field investigation at the request of the Illinois Environmental Protection Agency (IEPA) to characterize surface and subsurface contamination in the vicinity of the lagoons (See Appendix Q). The Mathes investigation identified the Paxton main and skimmer lagoons and south pond as contaminated areas (Figure 2). Predominate constituents of the skimmer lagoon were identified as oils, solids, and water. Chemical composition and pH varied greatly among samples as a function of location and depth. Lagoon samples were documented with pH measurements between 1 and 12. At the completion of the investigation, Weston Services, Inc. was contracted by the IEPA to provide on-site incineration of the polychlorinated biphenyl (PCB)-contaminated main lagoon and surrounding soil. The skimmer lagoon was excluded from the IEPA removal action due to the fact that the low pH of the material could potentially damage the mobile incinerator.

On March 2, 1989, TAT representatives conducted a site investigation of the skimmer lagoon at the Paxton site. The TAT letter report (TDD# 5-8902-21) documented the presence of an unlined lagoon with approximate areal dimensions of 120 feet by 30 feet, and a depth of 14 feet. Also present were 44 acidic solid drums, seven high pH flammable liquid drums, six base/neutral liquid drums, and one inorganic acid liquid drum housed in two trailers on site (Figure 3).

1.3 Threat to Public Health and the Environment

Based on the site investigation and the analytical data supplied by the IEPA (Mathes Report), conditions at the Paxton site posed a direct threat to human health and the environment, and warranted a removal action as outlined in



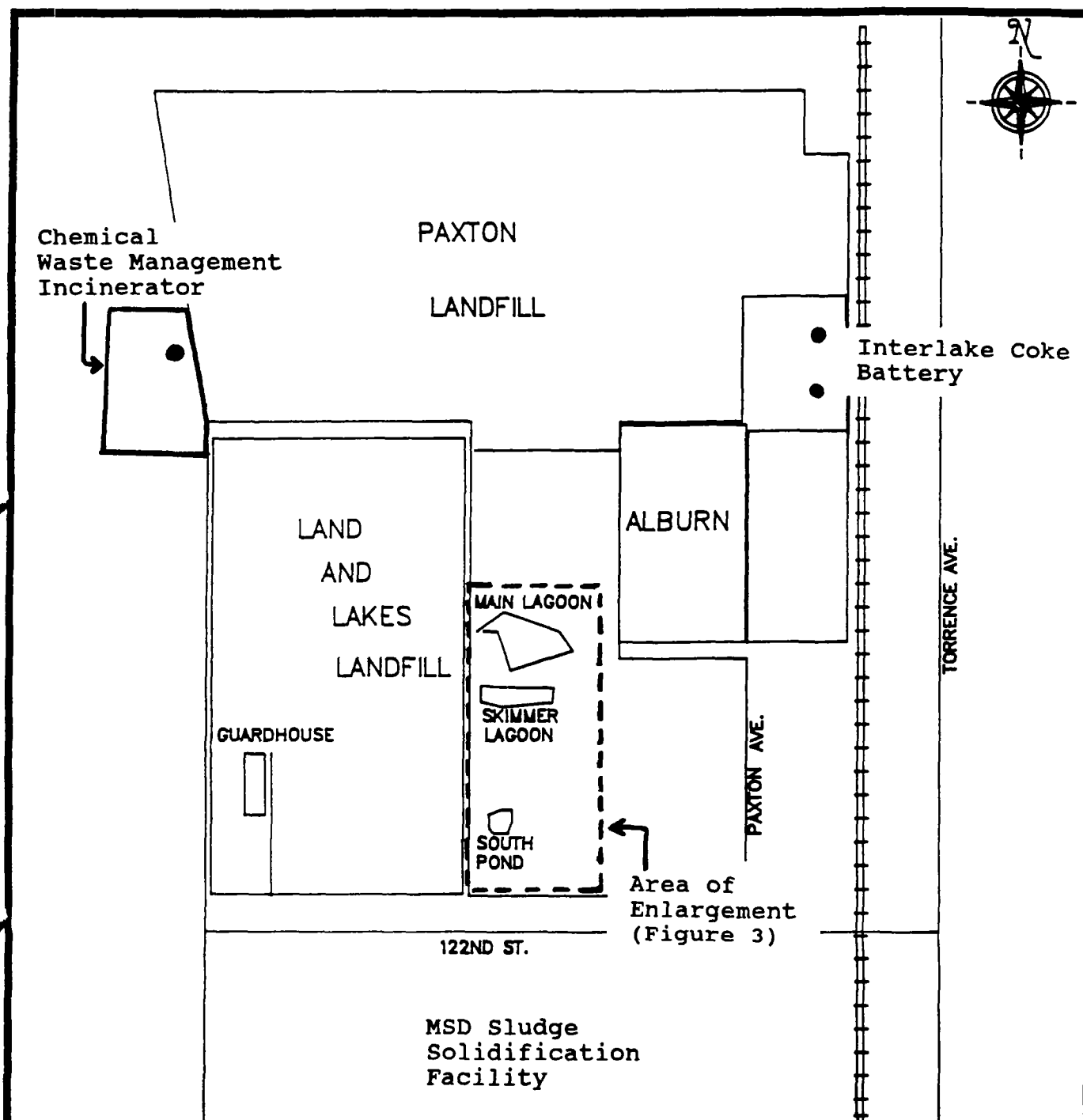


FIGURE 2

AREA MAP

PAXTON LAGOON

CHICAGO, ILLINOIS

NOT TO SCALE

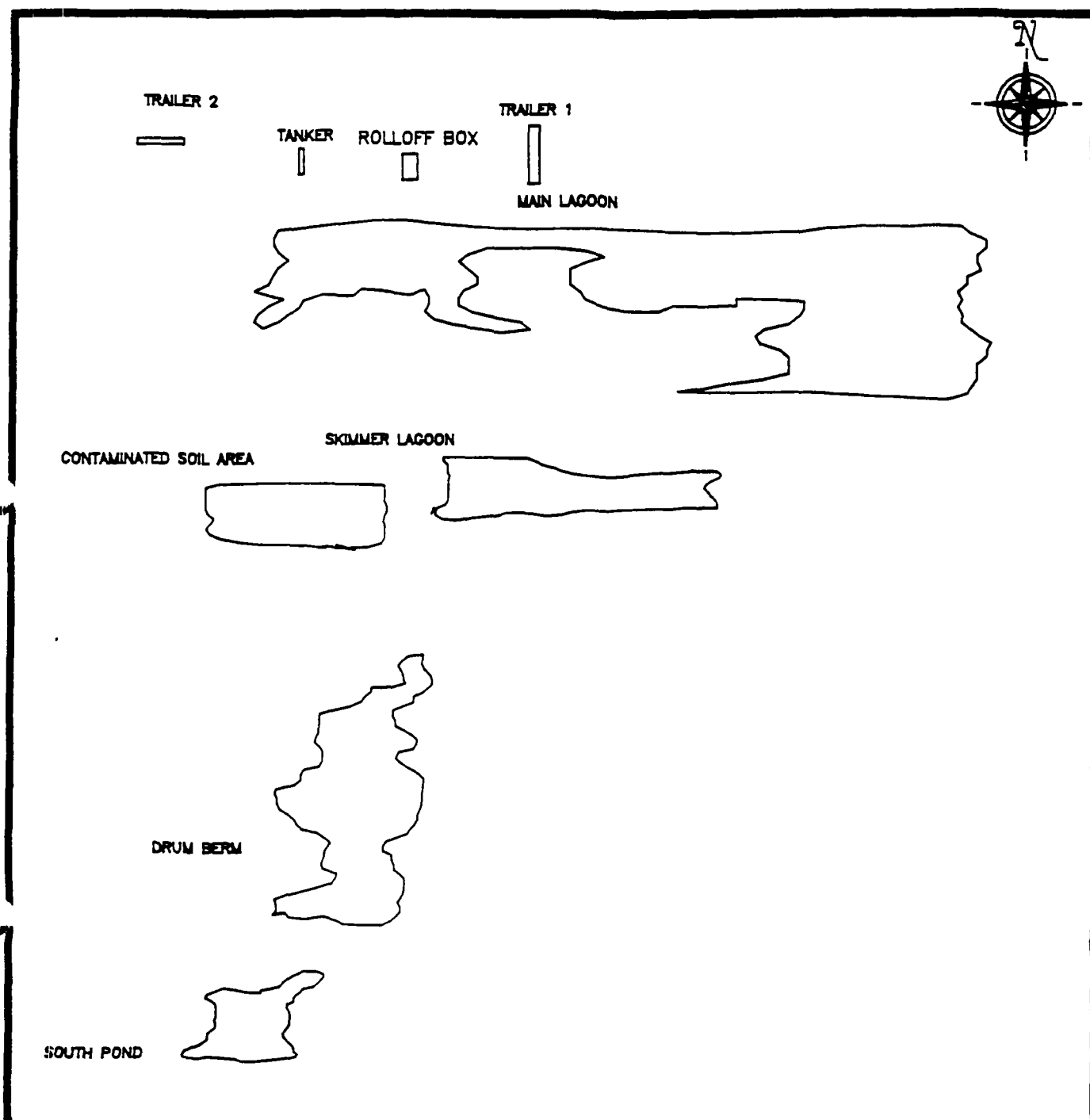


FIGURE 3
SITE MAP
PAXTON AVENUE LAGOON
CHICAGO, ILLINIOS
NOT TO SCALE

Note: Enlargement of Area
Outlined in Figure 2

Section 300.415 (b)(2) of the National Contingency Plan (NCP). Specifically, the following conditions existed at the Paxton site:

- o Actual or potential exposure to human populations, animals, or food chain from hazardous substances or pollutants or contaminants;

The surrounding Lake Calumet area is an expanse of wetlands encompassed by the communities of Pullman, Hegewish, Altgeld Gardens, South Deering, and Jeffrey Manor. Potential exposure existed through contact with corrosive oils and sludge on site. Large numbers of gulls nesting on and adjacent to the lagoon area were threatened.

The Mathes investigation of the lagoon identified areas of acidic and alkaline contamination. Based on the toxicology of sulfuric acid, vapors may cause irritation of the eyes, mucous membranes, and skin. Prolonged exposure to concentrations of 10 to 15 parts per million (ppm) of sulfur dioxide gas may cause rhinorrhea, choking, and in some instances reflex bronchia restriction with increased pulmonary resistance. Approximately, 10 percent (%) to 20% of the healthy young adult population is estimated to be hypersusceptible to the effects of sulfur dioxide.

- o Hazardous substances or pollutants or contaminants in tanks, drums, or other bulk storage containers that may pose a threat of release:

Two trailers housing approximately 58 deteriorating drums containing corrosive and/or flammable material posed a threat of release. Approximately 44 drums were open and contained acidic solids which could have become airborne and migrated off site.

- o High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate:

The skimmer lagoon contained a tar-like corrosive material. Contamination of the soil was visibly widespread.

- o Threat of fire or explosion:

Deteriorating drums containing flammable liquids were housed in trailers on site. Exposure to temperature changes may have caused a sudden fire or explosion, releasing hazardous material off site.

1.4 Attempts to Obtain a Response by Potentially Responsible Parties (PRPs)

A title search was completed for this site, and issues concerning property ownership remained under at the time this emergency removal action was undertaken. The site was used by what appears to have been "midnight dumping" operations.

1.5 Actions Taken

An Action Memorandum for \$406,000 was approved by the Director of Waste Management on September 1, 1989. The U.S. EPA began on-site removal activities at the Paxton site on September 11, 1989. The removal action, implemented to eliminate the threats posed to public health and the environment, consisted of two phases. Phase 1 occurred between September 11-21, 1989, and consisted of constructing a site access road; solidification of the skimmer lagoon, 44 acidic solid drums, seven base/neutral drums, and one inorganic acid drum; and sampling seven high pH corrosive drums for disposal acceptance. Phase 2 occurred on January 26, 1990, and consisted of transportation and disposal of the seven drums. The removal action was coordinated by the Emergency Response Cleanup Services (ERCS) contractor, MAECORP, Incorporated (MAECORP) of Chicago, Illinois under Contract #68-01-7360, Delivery Order #7360-05-036.

For Phase 1 of the removal action, the ERCS contractor mobilized a response manager, foreman, five clean-up technicians, four equipment operators, a lab technician, and a field clerk. Equipment mobilized included an office trailer, two trackhoes, two front-end loaders, two bulldozers, one backhoe, and four equipment trucks.

For Phase 2 of the removal action, the ERCS contractor mobilized a response manager, a foreman, and two clean-up technicians. Equipment mobilized included a utility van, and a four-wheel drive vehicle.

1.5.1 Road Construction, Solidification/Neutralization

On September 7, 1989, the OSC initiated a contractor's meeting at the site to make initial arrangements and coordinate removal activities with the IEPA.

On September 11-21, 1989, the OSC, TAT, and MAECORP crew mobilized to construct an access road to the site. The access road was installed so as to not interfere with the IEPA removal action.

Pits were excavated along the perimeter of the skimmer lagoon to visually determine the extent of contamination. The solidification of the lagoon involved removing the contents with a trackhoe into solidification/neutralization pits. A trackhoe solidified the material with lime, and a front-end loader staged the neutralized material. In addition, the contents of 44 acidic solid drums, six base/neutral drums, and one inorganic acidic liquid drum were neutralized and solidified with the lagoon contents. All material was backfilled into the former skimmer lagoon at the completion of Phase 1.

On September 14, 1989, confirmation samples were collected from the solidified lagoon contents. The material was analyzed for extraction procedure toxicity (EP toxicity), metals, pH, base/neutral/acid extractables (BNAs), and volatile organic compounds (VOCs) at Suburban Laboratories in Hillside, Illinois. Additional samples were collected and analyzed for PCBs at Grace Analytical Laboratories in Berkley, Illinois. Composite samples of a high pH flammable liquid were also collected and analyzed for disposal acceptance by Rollins Environmental Services in Deer Park, Texas; ThermalKem, Inc. in Rock Hill, South Carolina; and Ensco Inc. in El Dorado, Arkansas.

1.5.2 Waste Disposal

On January 26, 1990, a total of 385 gallons of a corrosive flammable liquid, contained in seven drums, was transported off site for incineration at Ensco, Inc. in El Dorado, Arkansas. The drums were overpacked into 85-gallon steel drums during Phase 1, and loaded for transport at the end of Phase 2. The waste type, quantity, disposal facility, date shipped, transporter, and manifest number are presented in Table 1.

1.5.3 Demobilization

At the conclusion of each phase of the removal action, all crew and equipment were demobilized. All on-site removal activities were completed on January 26, 1990, and equipment was demobilized by this date.

1.6 Community Relations

The proximity of the site to industrial areas, the IEPA-sponsored removal activities, and complaints by neighboring facilities brought the site to local attention. OSC Simes devoted time to establishing and maintaining a positive rapport with IEPA and Chicago Fire Department representatives. At the request of Chicago Fire Incidence Response Chief John Eversol, OSC Simes conducted a training module for the Chicago Hazardous Materials Team (CHMT) demonstrating solidification and neutralization techniques during an ongoing removal. OSC Simes also conducted numerous visits to Land and Lakes landfill to discuss removal concerns with the employees.

1.7 Cost Summary

MAECORP was the prime ERCS contractor and performed all on-site activities at Paxton (Contract #68-01-7360, D.O. #77360-05-036). Site activities commenced on September 11, 1989, and were concluded on January 26, 1990. A breakdown of the ERCS expenditures into major categories of labor, equipment, materials, subcontractor, transportation and disposal is provided in Table 2. A total removal cost summary is presented in Table 3.

TABLE 1

PAXTON AVENUE LAGOON, CHICAGO, ILLINOIS
DISPOSAL SUMMARY*

<u>Waste Type</u>	<u>Quantity</u>	<u>Disposal Method</u>	<u>Facility</u>	<u>Location</u>
Corrosive	385 gallons	Incineration	Ensco, Inc.	El Dorado, AR

* All waste transported by SET Environmental, Inc., Manifest #AR-388190 on January 26, 1990.

Any indication of specific costs incurred at the site is only an approximation, subject to audit and final definitization by the U.S.EPA. The OSC Report is not meant to be a final reconciliation of the costs associated with a particular site.

2.0 EFFECTIVENESS OF THE REMOVAL ACTION

2.1 Potentially Responsible Parties

As stated previously in Section 1.4 of this report, no PRPs could be located as the site was believed to be used by "midnight dumping" operations.

2.2 State and Local Officials

The IEPA is also conducting a removal of other hazardous materials at the site. Weston Services, Inc., under contract to the IEPA, will incinerate the PCB-contaminated main lagoon and the surrounding contaminated soil. The skimmer lagoon was excluded from the IEPA removal action due to the low pH of the material. Although the IEPA did not provide monetary support toward the removal action, they did provide pertinent site background and analytical information. The IEPA also provided a front-end loader to load seven drums for transportation.

2.3 Federal Agencies

The U.S. EPA provided all monetary resources for the removal action at Paxton. Under direct guidance of the OSC, the cleanup effectively removed existing environmental and public health threats posed by the conditions at the site.

3.0 DIFFICULTIES ENCOUNTERED

No significant problems occurred during this removal action.

4.0 RECOMMENDATIONS

No recommendations other than that new type of trackhoe or excavator was used on site. It was an EL140 hoe with a 55 foot extended boom. It worked extremely well in the lagoon solidification process.

1 PAGE REDACTED
NON-RESPONSIVE

TABLE 3

SUMMARY OF TOTAL ESTIMATED CLEANUP COSTS
PAXTON AVENUE LAGOON REMOVAL ACTION
SEPTEMBER 1, 1989 - JANUARY 26, 1990

ORGANIZATION	AMOUNT
ERCS CONTRACTOR (1)	\$112,183.89
U.S. EPA EERB (2)	
Direct	7,520.16
Indirect	17,119.00
TAT (As of 3/30/90) (3)	<u>25,490.96</u>
TOTAL	\$162,314.01

- (1) From Final Invoice #5, MAECORP Inc., June 6, 1990 (Appendix N)
- (2) EERB cost from U.S. EPA Itemized Cost Summary, Superfund Accounting Section, 5/22/90 (Appendix G).
- (3) TAT costs given by the TAT (TDD #5-8909-03).

Any indication of specific costs incurred at the site is only an approximation, subject to audit and final definitization by the U.S.EPA. The OSC Report is not meant to be a final reconciliation of the cost associated with a particular site.

ATTACHMENT A

TIMELINE OF EVENTS

TIMELINE OF EVENTS
PAXTON AVENUE LAGOON SITE
CHICAGO, ILLINOIS

Activity	September 1989																January 1990	
	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	26		
Contractor Meeting	—																	
Mobilize/Demobilize			—							—	—	—	—	—	—	—		
Road Construction			—															
Test Pit Excavation			—															
Lagoon Solidification/ Neutralization						—	—	—	—				—					
Drum Solidification/Neutralization										—								
Backfill Lagoon													—	—				
Drum Disposal																—		